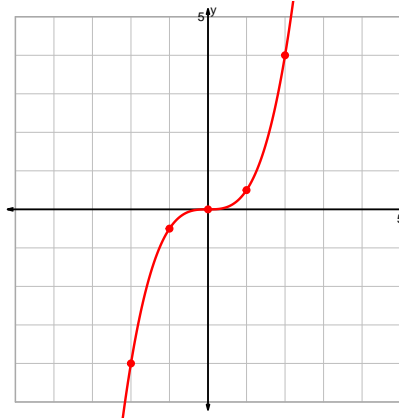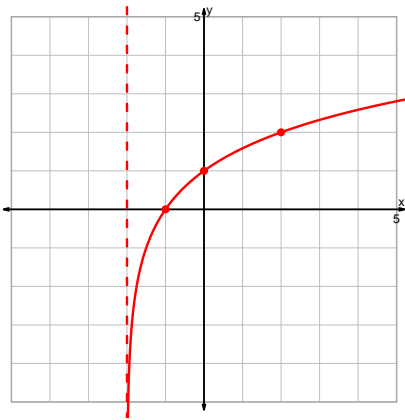# Unit-2 Reduced Mastery Assessment (version 311)

### Question 1 (20 points)

Graph the equations accurately. For each integer-integer point on the parent, indicate the corresponding point precisely. Also, with dashed lines, indicate any asymptotes.
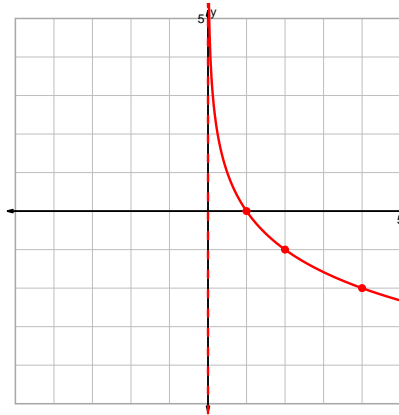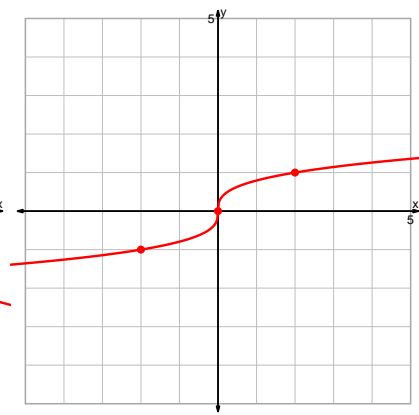
$y = \dfrac{x^3}{2}$
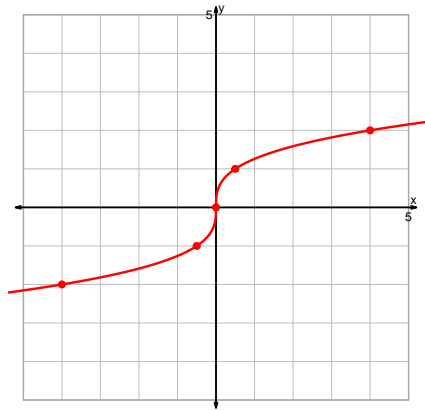
$y = \log_2\left(x+2\right)$

$y = -\log_2\left(x\right)$
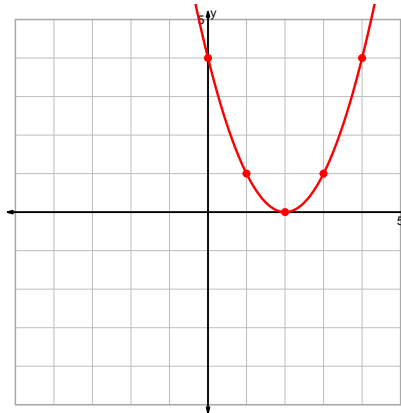
$y = \sqrt[3]{\dfrac{x}{2}}$
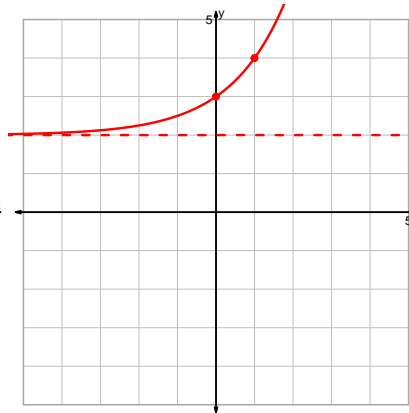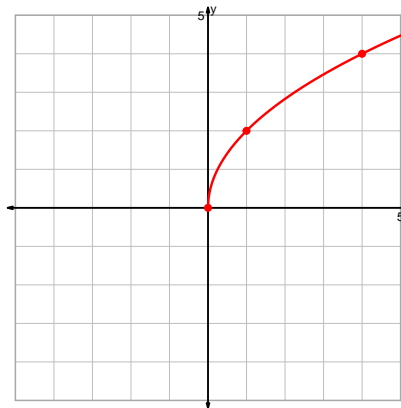
$y = \sqrt[3]{2x}$
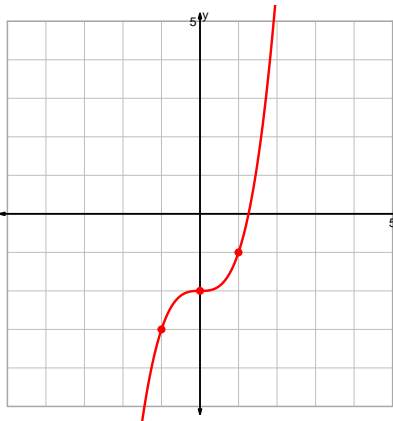
$y = 2^{-x}$
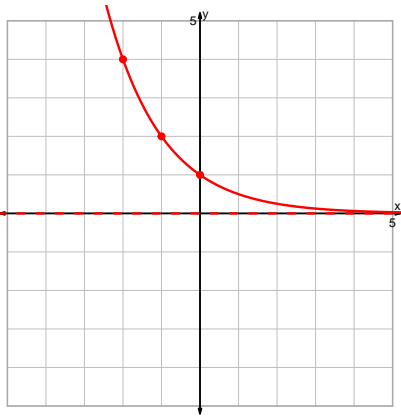
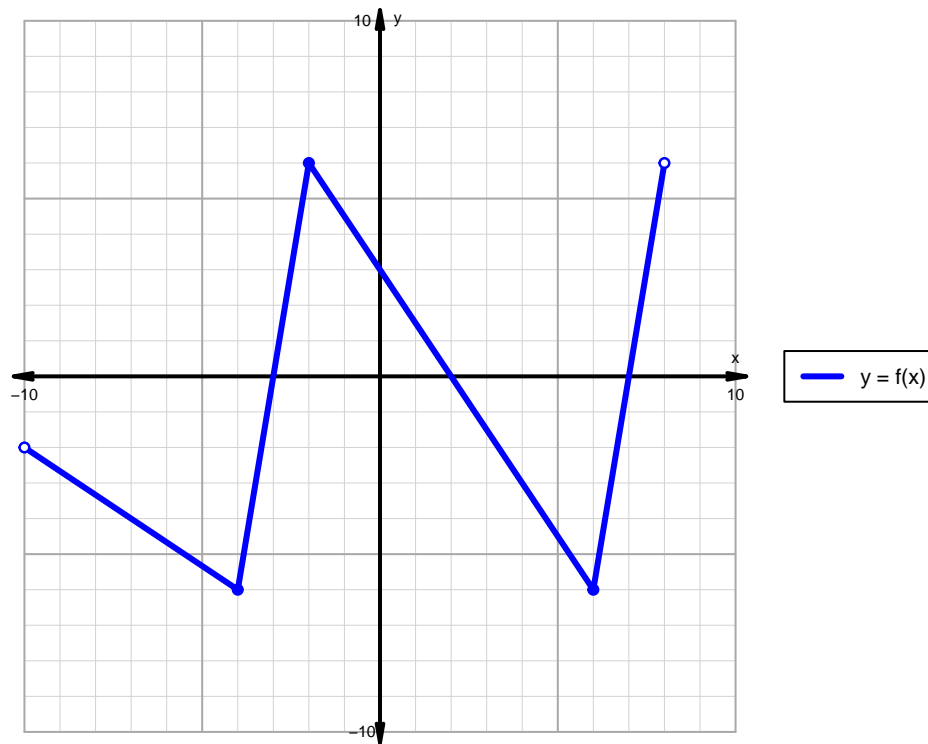$y = \left(x - 2\right)^2$

$y = 2^x + 2$

$y = 2 \cdot \sqrt{x}$

$y = x^3 - 2$

**Question 2 (20 points)**

A function is graphed below.



Indicate the following intervals using interval notation.

| Feature | Where |
|---|---|
| Positive | $(-3, 2) \cup (7, 8)$ |
| Negative | $(-10, -3) \cup (2, 7)$ |
| Increasing | $(-4, -2) \cup (6, 8)$ |
| Decreasing | $(-10, -4) \cup (-2, 6)$ |
| Domain | $(-10, 8)$ |
| Range | $(-6, 6)$ |

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